Testimony of Ira Shaughnessy, Sustainability Manager, Packaging and Specialty Plastics, The Dow Chemical Company, to Michigan House Energy and Technology Committee Hearing on energy recovery policy.

Good morning, Chairman Nesbitt and Members of the committee. My name is Ira Shaughnessy, and I am Sustainability Manager for the Packaging and Specialty Plastics business at The Dow Chemical Company.

Dow Packaging and Specialty Plastics is a dynamic growth business with annual sales of $12 billion and is one of the largest materials suppliers to the nearly $700 billion global packaging sector. Dow's broad portfolio of resins, films and adhesives offer our direct customers as well as brand owners, retailers, and consumers innovative and advantaged options in plastic packaging development and materials science that help improve functional performance, aesthetics, and sustainability across a variety of applications and uses.

Today's hearing on energy recovery addresses an important opportunity for the state of Michigan, and I am pleased to be here to present Dow's view on how Michigan can turn waste back into a valuable resource rather than buried potential. Energy Recovery has proven viable on a global scale and emerging technologies offer energy yields far greater than coal and near the value of heating oil.

High performance plastic packaging provides numerous sustainability benefits. Plastic packaging enables functionality that helps packages protect food and other consumer goods from theft or damage, preserve contents from spoilage, avoid contamination, and reduce unnecessary product waste and disposal. When compared to traditional packaging options such as metal, glass or paper, the use of plastics can often help reduce the weight of materials needed for packaging. Plastic packaging also helps to reduce water and food waste associated with spoiled food products, decrease fossil fuel consumption, and lower energy use for transportation or refrigeration of packaged products.

Successful strategies to expand the potential for plastic packaging must now proactively address end-of-life options as an important component of the overall product lifecycle. Packaging that has already been used, reused, or mechanically recycled to the full extent possible is often viewed as waste that fills up landfills, and these negative misperceptions can limit the prospects for growth as well as the potential for environmental and economic advantages of using plastic packaging. Disposal of non-recycled packaging in landfills, however, may not always be the best or only answer. In fact, in areas such as Europe, zero-to-waste approaches are helping to divert most waste from landfills. Even after it has served its original purpose and is at its end of life, used plastic packaging is a resource that can be recovered, diverted from landfills, and turned into an alternate form of energy that is "too valuable to waste."

Energy recovery programs divert plastics from landfills and result in using those materials to generate an added source of energy. The overall sustainability profile of energy recovery is positive. The U.S. Environmental Protection Agency (EPA) recognizes energy recovery as an advantageous end-of-life approach, stating that it is a "clean,

reliable, renewable source of energy" with a lower total environmental impact than most other energy sources.

When plastics are thermally recycled at the right temperature and conditions, energy recovery approaches fall well within regulatory limits. Thermal recycling, or energy recovery, enables the maximum utility capture from every natural gas or oil molecule used as a feedstock to make plastics, as these plastics can be used, reused, recycled, and recovered to recapture the full energy value of the original feedstock.

Energy recovery efforts extend the industry's commitment to further improve the sustainability profile of plastics and packaging. Diverting used packaging from landfills is an environmental imperative that also happens to make sense both financially and from an energy-based mindset. Energy recovery can help reduce our dependence on fossil fuels by providing an alternative energy source.

In addition to its work to improve product performance and increase mechanical recycling rates, Dow is actively working to

- increase awareness of the importance of energy recovery throughout the value chain
- undertake initiatives that will prove the value of this end-of-life approach
- serve in a thought leadership role to encourage industry interest, advocacy, and involvement.

At Dow, we recognize the opportunity associated with Energy Recovery and we support the adoption of a new energy recovery policy in Michigan.

Thank you.